



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,741	11/17/2003	Jung-Rak Yun	11038-113-999	6811
24341	7590	12/20/2004	EXAMINER	
MORGAN, LEWIS & BOCKIUS, LLP. 2 PALO ALTO SQUARE 3000 EL CAMINO REAL PALO ALTO, CA 94306			NGUYEN, CUONG H	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 12/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/716,741

Applicant(s)

YUN, JUNG-RAK

Examiner

CUONG H. NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/17/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 3661

### DETAILED ACTION

1. This Office Action is the answer to the communication received on 11/17/2003 (the IDS).
2. Claims 1-16 are pending in this application.

#### *Priority*

3. Acknowledgment is made of applicant's claim for foreign priority based on 4/22/2003 (Republic of Korea 2003-25345).

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

4. Claims 1-6, 12-13, and 16 are rejected under 35 U.S.C. § 102(b) as being anticipate by Bergholz et al. (US Pat. 6,151,539).

A. As for claims 1 and 12: Bergholz et al. teach a self-control traveling system, comprising.

- road signs, an imaging device configured to generate images of the road signs (see Bergholz et al., Figs. 3-7, and the abstract);

Art Unit: 3661

- means for analyzing and storing a roadside image (see Bergholz et al., 1:39-42, and 60-67);
- means for determining a current position and a road state using "position finding device and a digital street map" (see Bergholz et al., the abstract); and
- means for control steering operation, and speed (see Bergholz et al., 1:39-59, and 7:18-24).

B. As per claim 2: Bergholz et al. teach a self-control traveling system, wherein said road signs comprise graphic forms (see Bergholz et al., 1:60-67).

C. As for claim 3: Bergholz et al. teach a self-control traveling system, wherein said road signs comprise starting, end and turning point information (see Bergholz et al., 1:8-11, 3:18-21, and 8:59-63).

D. As for claim 4: Bergholz et al. teach a self-control traveling system, wherein said road signs comprise a curvature, speed limit, number of lanes (see Bergholz et al., claim 11, 8:51-57, 8:35-44, 5:4-6, 45-47).

E. As for claim 5: Bergholz et al. teach a self-control traveling system, wherein said imaging device is mounted on area view mirror (see Bergholz et al., claim 10).

Art Unit: 3661

F. As for claims 6, 16: Bergholz et al. teach a self-control traveling system, wherein said imaging device is a charge coupled device (CCD) camera (see Bergholz et al., claim 18).

G. As for claim 13: Bergholz et al. inherently teach that a processor, a status processor, and a control processor comprise modules of a common processing means (i.e., Bergholz et al. use a general micro-processor - A microprocessor is an electronic computer central processing unit (CPU) made from miniaturized transistors and other circuit elements on a single semiconductor integrated circuit).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

5. Claims 7-8, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergholz et al. (US Pat. 6,151,539), in view of Oda et al. (US Pat. 6,591,172).

A. As per claims 7-8: Bergholz et al. teach about vehicle self-control and determining a starting point for self-control traveling operation using a navigation system (see rejected rationales for above claim 1c and claim 3, 1e, 1f - these rationales are for claim 7a, 7c, 7d, and 7e).

Art Unit: 3661

Bergholz et al. do not disclose about switching from a manual control to an automatic control and vice versa.

However, Oda et al. suggest about switching from a manual control to an automatically control for a vehicle, and switching it back from an automatic control mode to a manual operation.

See Oda et al., in Brief Summary Text portion (para. 53):

"In one aspect of the present invention, in a case where at least one of the entry point data and the exit point data is registered by the registration device, the control apparatus is further provided with: a changeover data acquisition device obtains changeover data which includes at least one of data indicating changeover of the traveling mode from the automatic traveling to normal-drive traveling based on manual operations in the vehicle, and data indicating changeover of the traveling mode from the normal-drive traveling to the automatic traveling in the vehicle, the control device controls at least one of starting and termination of automatic traveling of the vehicle when the changeover data acquisition device obtains the changeover data."; and

In Detailed Description Text portion (para. 103):

" This conventional automatic operation control apparatus 10 is arranged to control traveling of the vehicle on the basis of the result of detection performed by the detection device 15. When the steering operation is detected at the time of changeover from automatic-drive traveling to normal-drive traveling, it is recognized that the driver is preparing for manual driving. That is, this result of detection of the steering operation indicates that the steering operation for steering the vehicle to the target road is being performed. In this situation, therefore, automatic driving control is not required and the operation mode can be changed from automatic-drive traveling to normal-drive traveling.", and see Oda et al., (claims 5, 15).

Art Unit: 3661

B. As per claim 9: The examiner respectfully submits that this claim's limitation is similar to claim 3's limitation; therefore, an obviousness rejection on Bergholz et al., and Oda et al. are also applied.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bergholz et al.'s system with different controls suggested by Oda et al. for the benefits of incorporating automatic navigations and driving controls in vehicle traveling.

6. Dependent claim 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergholz et al. (US Pat. 6,151,539), in view of Lohner et al. (US Pat. 6,370,471).

The rationale and reference for above rejection of claim 1 are incorporated.

Bergholz et al. suggest about a transmission controller, a steering controller (see Bergholz et al., 7:18-30).

Bergholz et al. do not disclose about a throttle controller, a brake controller.

However, Lohner et al. suggest above missing controllers (see Lohner et al., 4:56-65).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Bergholz et al.'s system with different controls suggested by Lohner et al. for the

Art Unit: 3661

benefits of incorporating all vehicle controls simultaneously for automatic navigations, driving, and guidance controls.

#### Claim Objections

7. Claims 10-11 are objected because they are dependent on rejected claim 7; however, the subject matter of these claims would be allowable if they are written in independent form incorporating claim 7's subject matter.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 703-305-4553. The examiner can normally be reached on 7am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on 703-305-8233. The fax phone number for the organization where this application is assigned is 703-305-7687.



Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Cuong H. Nguyen*

*CHN*  
CUONG H. NGUYEN  
Primary Examiner  
Art Unit 3661